DOCUMENT RESUME

ED 444 390 FL 801 392

AUTHOR	Kitay, Julia Farthing
TITLE	Using the Radio To Teach English as a Second Language.
PUB DATE	2000-00-00
NOTE	15p.
PUB TYPE	Reports - Evaluative (142)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Distance Education; Educational Technology; *English (Second Language); Literacy; *Radio; Second Language Instruction; Second Language Learning; Teaching Methods

ABSTRACT

The short-wave radio provides an excellent and cost-effective tool for teaching English as a Second Language (ESL), especially in remote or poor areas where Internet access may not be readily available. It allows the learner to hear multiple native English speakers talk in normal speed in a variety of accents. It also allows students to encounter new terms, expressions, and geographical locations. Radio is highly portable and relatively inexpensive. This paper addresses the advantages and disadvantages of using the radio, how radio propagation works, and suggestions for using the radio in the ESL classroom. The Internet and the World Wide Web have many advantages over radio use such as speed, interactivity, specialized site and chat room offerings, and other advantages, but these advantages are moot if this technology is out of reach for financial reasons for many who wish to learn English. Short-wave radio may be a much older technology, but its much lower cost makes it a viable pedagogical tool. A sample reception report is appended. (Contains 11 published and 5 Web site references on where to find more information about using the radio in the classroom.) (Adjunct ERIC Clearinghouse for ESL Literacy Education) (KFT)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 444 390

Using the Radio to Teach English as a Second Language

Julia Farthing Kitay

Introduction (Rationale):

English is becoming the lingua franca of the world. With an emerging global economy, English is becoming the language of industry, research, commerce, trade, science, technology, and diplomacy. More and more people around the globe want to learn English, but have very few opportunities to practice it. So what can be done so peoples around the world can learn English? Many people are now using the Internet to improve their English language skills, and yet in the more remote areas of the planet, people do not have access to it nor can they afford computer technology. As an alternative, people can turn to the radio as a resource for improving their English language skills.

Many people see the Internet as the future medium for communicating and for teaching English as a Second Language (ESL), and they are right. Still, many people do not have access to it. Then, what are the advantages of using the radio to teach ESL? There are many. The majority of the people on the planet cannot afford a $2000 computer nor can they afford a $20 a month fee for an Internet Service Provider (ISP). For areas throughout the world that do not have Internet access, the radio makes for a great alternative. If people wish to listen to broadcasts from around the globe, all they must do is turn on their radios. A shortwave receiver is relatively inexpensive, portable, and easy to obtain. It's easier to use a shortwave radio than it is to program a video cassette recorder (VCR). Should the Internet become inaccessible, the shortwave makes for a great backup. The shortwave is the original information superhighway!

FL801392

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Julia Kitay

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

According to Yoder (1997:9-10), the shortwave radio has been the best source of news and information for more than half a century. It's an actual source for news media. Many news organizations, as well as the military, employ people to monitor shortwave stations around the world for the latest current events. The shortwave is a great resource for cultural, geographical, and political science information and for learning foreign languages. It's more cost-effective and affordable than a computer. Should the electricity go out or if the phone lines are overcrowded, with some batteries, the populace can just turn on their radios to listen to the latest developments. The shortwave is indispensable in times of emergencies. Wipf (1984:7) noted several reasons for incorporating the use of the radio in foreign language instruction. They are the following:

- It exposes students to a wide variety of regional accents and idiomatic language (a source of authentic language). Students are provided with a wide variety of speakers to increase their listening comprehension skills.
- Grammar can be taught within the context of real language.
- Students can become accustomed to listening to the target language at normal speed.
- Recorded broadcasts can become a source of motivation and inspiration for second language learners.
- Recorded radio programs provide students with a greater awareness of events happening around the globe.
- Radio broadcasts can enliven the curriculum and can take away the ennui of learning a second language.

- New vocabulary can be introduced.
- Advanced students, in particular, can use the radio to study independently and work at their own rate of speed and can select the programs of their choice.

As mentioned by Crookal in an article he wrote for the British Journal of Language Teaching (1983:155), radio broadcasts can foster intercultural understanding. Likewise, in an article he wrote for System (1983:300), Crookal noted that: "...listening in to other countries' media may contribute a little to greater awareness of the fact that different peoples perceive and interpret the world in different ways. Cross-cultural communication is an area of much study and of increasing concern among L2 (second language) teachers."

Many people, however, would argue that radio also has its disadvantages. As noted by Yoder (1997:12 –13), it's much faster and more reliable to transmit information via satellite where there are no static crashes to disrupt communications. Some radio broadcasts may not come in clear enough and many of the "big name" press services such as Universal Press International (UPI), the Associated Press (AP), and Rueters no longer broadcast via the shortwave radio (SWL). For those who do have Internet access, many radio broadcasts are available on the Internet as "streaming audio" including BBC, VOA, etc. Listening to these broadcasts via the Internet provides many of the same advantages as listening to the radio. But for those without access to the Internet, the radio is still the best choice for immersion in the English language. It also has the unmistakable advantage of being portable. Besides, who wants to carry a computer on the back of a bicycle attached to a half a mile of phone cord?

The Radio and the Ionosphere (How Propagation Works):

The AM (530 to 1700 kHZ) and FM (88 to 108 MHz) broadcast bands are widely listened to throughout the planet. In many parts of the world, the AM band is known as the mediumwave band and the FM radio is known as VHF. The AM band is the most popular frequency range in the world, although FM is gaining popularity for its high-quality sound. AM is so popular because it's the oldest and best-established broadcasting band, and because the signals don't skip over most of the local listeners (like shortwave), yet a relatively small amount of power can cover hundreds of miles (unlike longwave or FM).

Long-distance radio reception is possible because of a layer in our atmosphere known as the ionosphere. The ionosphere is many miles above the earth, where the air is "thin" – containing few molecules. Here, the ionosphere is bombarded by x-rays, ultraviolet rays, and other forms of high-frequency radiation from the sun. This energy ionizes the layer by stripping electrons from the atoms in the ionosphere. The ionized layers of the atmosphere make long-distance radio communications possible.

Scientists have determined that the ionosphere can, in turn, be divided into several layers, but the D, E, and F layers are the ones that affect radio propagation. The D layer is closest to the surface of the Earth. The existence and strength of this layer depends on, and is proportional, to the sun in the sky. As a result, the D layer gradually grows in strength in the morning, is strongest at mid-day, and it gradually decreases until it disappears by nightfall. Also, the D layer is generally stronger in the summer than in the winter. On the lower frequencies (below about 10 MHz), the D layer will absorb any

signals that are transmitted into it. To experience a great example of this effect, tune across the AM band at midday and then do the same at night. At midday, you will hear local stations and maybe a few powerful cross-state stations. However, with nightfall, the band comes alive, and stations from across the country are audible. You have just witnessed the effect of the D layer.

The E layer is much like the D layer, except that it is a bit higher and the layer doesn't absorb all the radio signals. In fact, instead of just absorbing the signals, the E layer will often bend (refract) the radio waves back toward the earth, thus enabling radio signals to be heard over much greater distances than would otherwise be possible. Radio waves refract off the E layer then bounce off the earth's surface, where it refracts once again. This process is called "skip." However, although the E layer does refract signals back to the earth, it also absorbs them. This is why the radio signals on the AM band aren't refracted by the ionosphere. The E layer simply absorbs too much of the signal for it to bounce around the globe.

The F layer makes most shortwave and long AM skip possible. This layer is generally about several hundred miles above the earth. It remains ionized throughout much of the day and night. However, unlike the other layers (under most circumstances), the F layer will refract signals back to the earth. Because the F layer is so high above the earth, signals often skip over very great distances from the F layer – sometimes several thousand miles.

Shortwave is just another type of radio broadcast, like the AM and FM bands. There are, however, a number of differences between AM/FM and shortwave radio. For one, most AM and FM stations are owned and operated by private companies, but the

majority of shortwave stations are owned and operated by government agencies. Secondly, AM and FM stations use local times, but the shortwave radio stations use Universal Coordinated Time (UTC), also known as Greenwich Mean Time (GMT). Thirdly, AM and FM radio each use a single band of frequencies while shortwave radio uses 13 bands. Fourthly, regular AM and FM broadcasts are intended for audiences within a few hundred miles of the station, but shortwave broadcasts are aimed at audiences around the world. Fifthly, most AM and FM stations broadcast 24 hours a day on the same channel or frequency, whereas shortwave stations broadcast on different frequencies and the programs may last for less than an hour.

Unfortunately, the ionosphere is constantly changing in its ability to reflect radio waves. This is because the ionosphere is affected by the electrical energy of the sun. When the energy from the sun reaches these layers of air, it electrifies them, and since radio waves are electromagnetic in nature, they are affected by the electrical content of the ionosphere. Such difficulties force broadcasters to change the times and frequencies of their broadcasts.

Arguments Against Using Radio in the Classroom

Cost Effectiveness

Some people may argue that using a radio in the classroom is not cost-effective. Of course, people must consider the cost of buying a shortwave/AM/FM radio, a portable tape cassette recorder, an external antenna, and also batteries, audiotapes, and other miscellaneous items. In particular, the cost of batteries alone can be considered a major expense.

As stated by Tilsen and others (1991:4), the results of their studies in Bolivia, Honduras, and Lesotho indicated that radio can be a powerful tool in improving the quality of instruction in the language arts. The costs are relatively low and affordable. The results further indicated that from a cost-effectiveness perspective, radio may be a better mode of instruction than even textbooks and teacher training. Tilsen and his colleagues noted that a major drawback was the cost of batteries. This proved to be a significant factor. However, they suggested the use of Nicad rechargeable batteries and having the batteries recharged with the use of a solar panel. This would reduce the total battery cost by one-half.

Poor Radio Reception

Another factor, some may argue, is that radio receptions do not come in clearly enough. Thus, people cannot record a clear broadcast on their tape cassettes. Antennas are necessary to receive signals. For portable radios with built-in whip antennas, external antennas can improve reception and reduce unnecessary background noise. (Please refer to the websites listed in the references section for suggestions on how to construct various types of external antennas, explanations about radio propagation and time zones).

Suggestions for Use of the Radio in the Classroom

The radio has so much to offer in terms of enriching curriculum, but it can be particularly helpful in teaching a foreign language. The radio provides students with the opportunity to hear authentic language and to expose them to other dialects and accents

of native speakers. Teachers without Internet connections will find the radio as an affordable and accessible alternative tool for bringing the world to their students.

After listening to a taped broadcast, a teacher and advanced students can "brainstorm" vocabulary and write it down on the chalkboard. A map of the world (ideally in the language being taught), a good bilingual dictionary, and an atlas will greatly enhance the learning process because the listeners will encounter new terms, expressions, and unfamiliar geographic locations. Of course, the teacher may want to come up with a list of the most difficult vocabulary items, idioms, and phrases on his/her own with accompanying definitions or explanations in the target language. Some teachers may wish to prepare an entire script, but this can be very tiring in terms of time and energy.

The teacher can also provide the students with a list of comprehension questions before playing the tape. In this manner, the students will be motivated and will be given a sense of direction as to what to listen for. Students can also come up with their own questions or opinions regarding controversial topics. They can either debate in the target language or express their own opinion in writing. The teacher can also assign oral reports of various lengths based on a radio broadcast. A one-minute summary of a given program is a good way for a foreign language learner to build confidence. The instructor can devise grammar and vocabulary exercises using the content of the broadcast. Students should be encouraged to find synonyms and antonyms or paraphrase the meanings of key words in the broadcast or have them construct sentences using the vocabulary or grammar being taught. The teacher may also wish to discuss aspects of the foreign culture such as education, political events, music, holidays, customs, traditions,

transportation, activities of young people, sports, and geography to spark the students' interest.

As noted by Ninno (1999:3), having students write letters to international stations giving listener reports is a well-proven listening activity. The students can enhance both listening and writing skills. Stations really appreciate these reports, especially if it includes time and date broadcasts are heard and quality of reception. Stations usually reply with letters or special postcards, brochures, posters, key chains, or bumper stickers. Teachers can display these items to prepare interesting displays in the classroom learning center.

King (1992:5-6) gives a good example of how to write a reception report. "Because of the electrical interference from the sun, the broadcasts are not always clear and easy to hear or understand. In order to know how well their broadcasts are being received in various parts of the world, most shortwave stations invite listeners to send in reception reports describing how clearly the station was received...To complete a report, the listener must cite the time and date of the broadcast in Coordinated Universal Time, describe the content of a few minutes of the broadcast, and the rate of quality of the broadcast using a SINPO rating. SINPO stands for the **S**trength of the signal, the amount of **I**nterference from other stations, the amount of **N**oise caused by atmospheric phenomena such as lightning, the **P**ropagation (the steadfastness or fading) of the signal, and the **O**verall quality of the broadcast. Each is rated on a five-point scale; a SINPO rating of 55555 is a perfectly clear broadcast, a rating of 11111 is inaudible."

When a station receives a valid reception report, it sends the listener verification in the form of a QSL card. QSL is a term from radio telegraphy which means "received."

Most stations also send other information such as broadcast schedules, blank reception reports, small gifts, and newsletters. A sample of a SINPO report form is provided on the next page.

Conclusion

Though many people are now using the Internet to improve their English language skills, in the more remote areas of the planet, people do not have access to it nor can they afford computer technology. As an alternative, people can turn to the radio as a resource for improving their English language skills. All the students and instructor needs is an AM/FM/shortwave receiver, some batteries, audio tapes, a tape recorder with an attachment for the receiver, and a little creativity. The radio has much to offer and is still a viable and low cost technology that can be utilized in the English as a Second Language classroom.

Sample Reception Report

Station: Language:

Date: Time _____ UTC

Frequency_____kHz SINPO __ __ __ __ __

Type of Radio:

Program Details:

_____

Comments and suggestions:

_____

Listener's name and address:

	Strength	Interference	Noise	Propagation	Overall
5	excellent	none	no noise	no fading	excellent
4	good	slight	slight	slight	good
3	fair	moderate	moderate	moderate	fair
2	poor	severe	severe	severe	poor
1	very weak	extreme	extreme	extreme	unusable

References

Bennett, H., Helms, H.L., and Hardy, D.T. (1986). The Complete Shortwave Listener's Handbook (3rd Ed.). Blue Ridge Summit, PA: Tab Books. ISBN 0-8306-2655-7.

Crookall, D. (1983). "Voices Out of the Air: World Communication Year, International Broadcasting and Foreign Language Learning." System, Vol. 11, No. 3, pp. 295 – 302.

Crookall, D. (Winter 1983). "Eavesdropping on a World of Languages." British Journal of Language Learning, Vol. 25, No. 3, pp.155 – 165.

De Maw, D. (1987). W1FBS Antenna Notebook. Newington, CT: American Radio Relay League, pp. 84 – 87. ISBN 0-87259-261-8.

King, I.L. (August 1992). "Shortwave Radio: A Tool for Integrating the Curriculum." ERIC Document ED 364-216.

McCormick, A.L. (1993). Shortwave Radio Listening for Beginners. Blue Ridge Summit, PA: Tab Books, Inc. ISBN 0-83064-135-1.

Ninno, A. (March 1999). "Radios in the Classroom: Curriculum Integration and Communication Skills." ERIC Digest ERIC Document ED 426-693.

Tilson, T.D.and Others. (March 1991). "The Cost-Effectiveness of Interactive Radio Instruction for Improving Primary School Instruction in Honduras, Bolivia and Lesotho." Newton, MA: Education Development Center, Inc. ERIC Document ED 358-833.

Winters, Ken. (1993). Listening to Shortwave. Richardson, TX: Master Publishing, Inc.

Wipf, J.A. (Spring 1984). "Shortwave Radio and the Second Language Class." Modern Language Journal, Vol. 68, No. 1, pp. 7-12.

Yoder, A. (1997). The Complete Shortwave Listener's Handbook (5th ed.). New York, NY: McGraw-Hill. ISBN 0-07-913010-0.

Websites

Grundig Radio – Frequently Asked Questions
http://www.grundigradio.net/_html/sFaq.htm
(July 20, 2000)

BEST COPY AVAILABLE

"The AmateuRadio Operator's Antenna Handbook."
http://www.amateuradio.org/arant.html
(July 20, 2000)

Universal Radio Inc. (Dxing.com – The Web Resource for Radio Hobbyists)
http://www.dxing.com
(July 20, 2000)

International Broadcasting Bureau (United States Voice of America)
Interference-Reducing Antenna for Shortwave Broadcasts
http://www.ibb.gov/engineering/antenna1/html
(July 20, 2000)

Greenwich Mean Time (GMT) and Universal Time (UTC)
http://www.cstv.to.cnr.it/toi/uk/timezone.html
(July 20, 2000)

Abstract

The shortwave radio provides an excellent cost-effective tool for teaching English as a Second Language, especially in remote areas where Internet access may not be readily available. Advantages for using the shortwave radio for teaching English is that it allows students to hear multiple native English speakers talk in normal speed in a variety of accents. It also allows students to encounter new terms, expressions and geographical locations. It is a teaching medium that is highly portable and relatively inexpensive. This paper addresses the advantages and disadvantages of using the radio, how radio propagation works, suggestions for using the radio in the English as a Second Language classroom, and provides references and websites on where to find more information about utilizing the radio in the classroom.